

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

04 Jun 2026

### Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery In Skeletal Class III Patients

#### Protocol summary

##### Study aim

Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery

##### Design

single blinded randomized clinical trial with parallel groups on 30 patients. Excel software rand function was used for randomization.

##### Settings and conduct

Patients undergoing bilateral bimaxillary surgery at the Department of Oral and Maxillofacial Surgery, Imam Hossein hospital, Shahid Behehsti University of Medical Sciences, were included in the present study. Group I included 30 patients and had kinesio tape applied. Group II included 30 patients and had pressure dressing applied. Swelling was assessed using a flexible ruler by measuring the distance between 6 landmarks. The visual analog scale for pain scores were recorded postoperatively at 30 minutes, 1, 6, 12, and 24 hours, and day 2, 5 post operation. The effects of operative time, patient age, gender and BMI were standardized.

##### Participants/Inclusion and exclusion criteria

Class III skeletal patients who are going under bimaxillary surgery bilaterally. Patients who were: using medications had systemic conditions had osteogenic systemic disease only needed surgery in one jaw pregnant allergic to the tape allergic to the medication protocol under 18 were excluded from the study

##### Intervention groups

group I: pressure dressing group Four 4\*4 inch fluffed sterile gauzes are placed on each side of the face, supported by surgical fix. group II: Kinesio taping group The length of the tape is measured for each patient from the clavicle to the end of the swollen area. The tape passes the Cervical, Subglottic, Mandibular, Submandibular, Pre-auricular, and Parotid lymph nodes until they reach the zygomatic arch. Then, along the

length of the master muscle, tape is attached for more support.

##### Main outcome variables

edema, pain

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20211205053279N1**

Registration date: **2022-11-26, 1401/09/05**

Registration timing: **registered\_while\_recruiting**

Last update: **2022-11-26, 1401/09/05**

Update count: **0**

##### Registration date

2022-11-26, 1401/09/05

##### Registrant information

##### Name

Mostafa Alam

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 4464 8012

##### Email address

mostafa\_alam@sbmu.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-05-24, 1401/03/03

##### Expected recruitment end date

2023-02-22, 1401/12/03

##### Actual recruitment start date

empty  
**Actual recruitment end date**  
empty  
**Trial completion date**  
empty

**Scientific title**  
Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery In Skeletal Class III Patients

**Public title**  
Kinesiologic Taping and Pressure Dressing comparison in swelling and pain management after orthognatic surgery

**Purpose**

Supportive

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

Skeletal class III patients, indication for BSSO setback and LeFort1 advancement

**Exclusion criteria:**

Syndromic Under medications indicates rotational surgery one jaw needs surgery pregnant systemic condition allergic to tapes

**Age**

From **18 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **30**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Randomized blocks method classified by age and sex

**Blinding (investigator's opinion)**

Not blinded

**Blinding description**

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

**Secondary Ids**

empty

**Ethics committees**

**1**

**Ethics committee**

**Name of ethics committee**

Research Ethics Committees of Research Institute of Dental Sciences- Shahid Beheshti University of M

**Street address**

No 26, Sharifimanesh St., Andarzgoo Blvd.

**City**

Tehran  
**Province**  
Tehran  
**Postal code**  
1934963954

**Approval date**

2021-12-28, 1400/10/07

**Ethics committee reference number**

IR.SBMU.DRC.REC.1400.142

**Health conditions studied**

**1**

**Description of health condition studied**

swelling and pain after orthognathic surgery

**ICD-10 code**

Q67.4

**ICD-10 code description**

Other congenital deformities of skull, face and jaw

**Primary outcomes**

**1**

**Description**

tissue swelling

**Timepoint**

immediately post- op; day 1,2,5 post-op

**Method of measurement**

n order to assess the extent of swelling, 5 distances (in mm) were measured at 6 points on the face with a flexible ruler, from the angle of the mandible to: 1) the tragus skin point, 2) the out- er angle of the eye, 3) the nasal border - wing of the nos- tril 4) the lip angle, and 5) the soft pogonion)

**2**

**Description**

pain

**Timepoint**

30 mins, 1,6,12, 24 hours after surgery. day 2,5 post-op.

**Method of measurement**

VAS

**Secondary outcomes**

empty

**Intervention groups**

**1**

**Description**

Intervention group: Kinesio taping. kinesio taping is a therapeutic taping technique which alleviates pain and facilitates lymphatic drainage by microscopically lifting the skin. The patch is made of nylon and cotton to match the range of natural skin in motion. The adhesive is applied to clean stretched skin. the treatment will last for 7 days. The brand used in this study is Himmel, made in

South Korea.

### Category

Treatment - Devices

## 2

### Description

Intervention group: Pressure dressing. 4 fluffed sterile gauzes, supported by a surgical fix will be place on each side of the face for a week.

### Category

Treatment - Devices

## Recruitment centers

## 1

### Recruitment center

#### Name of recruitment center

Imam Hossein hospital

#### Full name of responsible person

Mostafa Alam

#### Street address

Madani Ave.

#### City

Tehran

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Tehran

#### Postal code

1617763141

#### Phone

+98 21 7343 3000

#### Email

info@ehmc.ir

#### Web page address

<https://www.ehmc.ir>

## Sponsors / Funding sources

## 1

### Sponsor

#### Name of organization / entity

Shahid Beheshti University of Medical Sciences

#### Full name of responsible person

Afshin Zarghi

#### Street address

Shahid Beheshti University of medical sciences, Bldg. NO.2, Arabi Ave, Velenjak, Tehran

#### City

Tehran

#### Province

Tehran

#### Postal code

1985717443

#### Phone

+98 21 2243 9770

#### Email

info@sbmu.ac.ir

#### Web page address

<https://sbmu.ac.ir>

#### Grant name

### Grant code / Reference number

### Is the source of funding the same sponsor organization/entity?

Yes

### Title of funding source

Shahid Beheshti University of Medical Sciences

### Proportion provided by this source

100

### Public or private sector

Public

### Domestic or foreign origin

Domestic

### Category of foreign source of funding

*empty*

### Country of origin

### Type of organization providing the funding

Academic

## Person responsible for general inquiries

### Contact

#### Name of organization / entity

Shahid Beheshti University of Medical Sciences

#### Full name of responsible person

Mostafa Alam

#### Position

Assistant Professor

#### Latest degree

Specialist

#### Other areas of specialty/work

Dentistry

#### Street address

Shahid Beheshti University of Medical Sciences, School of dentistry, Daneshjoo Blvd., Evin, Chamran Exp., Tehran.

#### City

Tehran

#### Province

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#### Postal code

1983969411

#### Phone

22175350- 021

#### Email

mostafa\_alam1@yahoo.com

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## Person responsible for scientific inquiries

### Contact

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#### Full name of responsible person

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#### Latest degree

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**Person responsible for updating data**

**Contact**

**Name of organization / entity**

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Mostafa Alam

**Position**

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**Latest degree**

Specialist

**Other areas of specialty/work**

Dentistry

**Street address**

Shahid Beheshti University of Medical Sciences,  
school of dentistry, Daneshjoo Blvd., Evin, Chamran  
Exp., Tehran.

**City**

**Sharing plan**

**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to  
make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to  
make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to  
make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to  
make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to  
make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to  
make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to  
make this available